FINAL APPLICATION

AMENDED AGREEMENT FOR URANIUM RECOVERY REGULATION

STATE OF UTAH

DIVISION OF RADIATION CONTROL
UTAH DEPARTMENT OF ENVIRONMENTAL QUALITY

JANUARY 2003

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UTAH FINAL APPLICATION
FOR
URANIUM MILLS AND MILL TAILINGS

Introduction (Criterion 29*)

Section 274 of the Atomic Energy Act of 1954, as amended, authorizes the U.S. Nuclear Regulatory Commission (NRC) to enter into agreements, whereby states assume certain regulatory functions that would otherwise be the responsibility of the NRC. Utah Code Annotated (UCA) 19-3-113 authorizes the Governor of Utah to enter into such an agreement. On April 1, 1984, Utah became an Agreement State with regulatory authority over 11e.(1) byproduct material, source material, and special nuclear material in quantities not sufficient to form a critical mass. On May 9, 1990, the agreement was amended to include the regulatory authority for land disposal within the State of source, byproduct, and special nuclear material received from other persons. At this time, the State of Utah wishes to amend its agreement to assume regulatory authority over byproduct material as defined in Section 11.e.(2) of the Atomic Energy Act for uranium mills and mill tailings.

The Utah Department of Environmental Quality (DEQ), Division of Radiation Control (DRC), will be the designated agency for carrying out these responsibilities. William J. Sinclair, Director of the Division of Radiation Control, will be the contact.

*1981/1983 Policy Statement: "Criteria for Guidance of States and NRC in Discontinuance of NRC Regulatory Authority and Assumption Thereof by States Through Agreement"

Policy Statement (Criteria 29 and 35)

The following policy statement for assuming regulatory authority over byproduct material as defined in Section 11.e.(2) of the Atomic Energy Act for uranium mills and mill tailings has evolved through a discussion process involving scoping and task force meetings. During October and November 1999, the Division of Radiation Control conducted a series of stakeholder meetings with potential licensees and a series of public scoping meetings that were held in Salt Lake City, Tooele, Ticaboo, Blanding, and Moab, Utah. At the public scoping meetings, the Division requested comments on the following proposal: "The State of Utah will amend its current agreement with the Nuclear Regulatory Commission to regulate uranium mills and tailings." Thirty-nine persons offered oral comments during the public scoping meetings and approximately 150 persons attended the five scoping meetings. In addition, 8 written comments were received during a public comment period that ran from October 28, 1999 through December 6, 1999.

During the 2000 Utah legislative session, it was determined that it would be beneficial to form an Agreement State/Groundwater Authority task force to examine several issues relating to Agreement State status. The task force was initiated by the Utah Department of Environmental Quality in April 2000. Interested stakeholders that were invited to participate on the task force included licensee representatives, local community representatives, representatives of the Utah Radiation and Water Quality Boards, and a representative of the Utah Mining Association. The task force was jointly sponsored by the Department of Environmental Quality, Divisions of Water Quality and Radiation Control. After several meetings, the task force formulated a paper entitled: "Elements of a Utah Agreement State Program for Uranium Mill Regulation." In July

2000, the task force unanimously supported the Division of Radiation Control in pursuing Agreement State status as established in the "Elements" paper. The "Elements" paper described several aspects of a Utah Agreement State program including the following policy statement:

"The State of Utah recognizes the importance of and supports the uranium mining and milling industry. The State recognizes that to remain viable at this time, uranium mills must be able to engage in activities other than milling conventional mined uranium ores such as processing alternate feed materials for the recovery of uranium alone or together with other minerals. The State also recognizes its responsibility to ensure that all such activities are accomplished in a manner that is protective of human health and the environment. It has been a long-standing policy for the State to seek primacy for environmental programs. In this regard, the State believes that a cooperative uranium mills and tailings regulatory program will be of benefit to both the regulated community and Utah citizens. The advantages that the State can offer over the current Nuclear Regulatory Commission program include better communication with and participation of the public in uranium recovery issues, elimination of duplicative regulatory responsibilities, providing a more cost effective program for the regulated community, and establishing control of materials not currently being regulated (e.g. pre-1978 uranium mill tailings) while maintaining a regulatory program that is adequate and compatible with existing and future NRC regulations and policy. The elements within this application provide the framework for how the State of Utah would regulate uranium mills and tailings as an Agreement State."

Information on the task force, including minutes of each meeting can be found on the Division of Radiation Control website at http://www.deq.state.ut.us/EQRAD/MILLS/ATLAS/Deq_task.htm. Announcement of formation of the task force as well as periodic updates of the task force work were provided to the Utah Radiation Control Board.

The State of Utah also wishes to emphasize that this application does not include the former Atlas site in Moab, Utah, now known as the Moab Millsite. In accordance with the Defense Reauthorization Act, this property was transferred to the Department of Energy. The Moab Millsite has converted back to a Uranium Mill Tailings Radiation Control Act (UMTRCA) Title I site with cleanup responsibility delegated to the Department of Energy.

Description of Organization (Criteria: 29, 33, and 35)

[See Appendix A for Organizational Charts]

The Department of Environmental Quality was created within state government on July 1, 1991 with the mission of safeguarding human health and quality of life through the protection and enhancement of the environment. The Governor with the advice and consent of the Senate appoints an Executive Director to administer the Department. The Department is made of six divisions: Division of Air Quality, Division of Drinking Water, Division of Environmental Response and Remediation (Superfund, Underground Storage Tanks, and Emergency Response), Division of Radiation Control, Division of Solid and Hazardous Waste, and the Division of Water Quality. Each Division is under immediate direction and control of a Division Director appointed by the Executive Director. There are five policymaking boards created within the department: the Air Quality Board, Radiation Control Board, the Drinking Water Board, the

Water Quality Board, and the Solid and Hazardous Waste Control Board. Division Directors are also appointed as an Executive Secretary to the appropriate Board.

The Utah Division of Radiation Control promotes a mission that protects Utah citizens and the environment from sources of radiation that constitute a significant health hazard. The Division is divided into two sections, Radioactive Materials and X-ray Section and Low-Level Waste and Environmental Monitoring Section. The Sections are supervised by two managers who are under the direction of the Division Director. Upon assumption of the program, the Low-Level Waste and Environmental Monitoring Section will be renamed the Environmental Monitoring, Uranium Recovery, and Waste Management Section. The staff is divided among the following: Radioactive Materials, X-ray, Indoor Radon, Envirocare, Waste Isolation Pilot Plant Transportation Project, and the Generator Site Access permit program. A seventh program, Uranium Mills, will be added. Division staff carry out the Division's mission and assist customers in complying with the rules.

The Radioactive Material and X-ray Section is responsible for coordinating and managing the use of radiation sources in hospital, clinical, medical, research, academic, and industrial facilities. This section performs the regulatory functions of licensing and inspecting facilities using radioactive material; registering and inspecting medical, academic, research, and industrial radiation producing equipment; and responding to radiation incidents.

The Low-Level Waste and Environmental Monitoring Section is responsible for licensing and inspecting the Envirocare low level waste facility; studying indoor radon concentrations and

disseminating information to the public relevant to health risks; directing and overseeing on-site stabilization or relocation of abandonment of uranium mill tailings; and maintaining the integrity and usefulness of radiation survey instruments.

The Radiation Control Board is appointed by the Governor with the consent of the Utah Senate and guides development of state radiation control policy and rules in the state. The board is made up of 13 members, one of whom is the Department of Environmental Quality Executive Director or designee, and are appointed by the Governor with the advice and consent of the Senate. The Department and Division staff submit recommendations for Board members to the Governor for consideration. The appointed members are to be knowledgeable about radiation protection and represent the following interests in the community: a physician; a dentist; a health physicist or other professional employed in the field of radiation safety; three representatives of the regulated community, at least one whom represents the radioactive waste management industry and one who represents the uranium milling industry; a registrant or licensee representative from academia; one representative of a local health department; one elected county official; and three members of the general public, at least one of whom represents organized environmental interests. The board is required to meet at least quarterly to carry out the duties described in section 19-3-103.5 of the Utah Code Annotated. The Board typically meets on a monthly basis except February and July. The Board also travels, as resources allow, to southeastern Utah and Tooele County for one of the monthly meetings during the year. It may be necessary to consider an increase in the number of times that the Board meets in southeastern Utah as a result of uranium recovery regulation. Board members are subject to the Utah Public Officers' and

Employees' Ethics Act. Information regarding disclosure and conflict of interest for Board members are found in Appendix A.

The State of Utah rules were amended to include an environmental report prepared by the licensee that will be reviewed by the Division of Radiation Control.

Outside consultants will not be used but the Division has the ability to contract with outside consultants through its fee schedule with mutual consent of the licensee.

The medical consultant with expertise in emergency medicine that would be used by the Division is the Radiation Emergency Assistance Center/Training Site in Oak Ridge, Tennessee. The Department of Energy Idaho National Engineering and Environmental Laboratory would also be used as a resource.

Legal support is through the Attorney General's Office. The Utah Attorney General's Office provides legal consultation services on all environmental issues that the Division may need to address. The Attorney General's office can provide criminal investigative assistance and prosecution.

Groundwater Authority (Criteria 29, 33, and 35)

The Division of Radiation Control administers both groundwater permitting and radioactive material licensing for disposal facilities and uranium mills. This process has been made more effective by utilizing existing provisions of the Utah Water Quality Act which allows the Water

Quality Board and Executive Director to designate the Director of the Division of Radiation Control as a Co-Executive Secretary to administer provisions of the Water Quality Act for the identified facilities [see Utah Code Annotated (UCA) 19-5-106 and 19-5-104 (1),(k)]. The DRC Director has been designated as a Co-Executive Secretary of the Water Quality Board and given legal authority to issue, administer, and enforce specific groundwater permits under the Utah Water Quality Rule UCA R317-6 as applied to the following facilities: Envirocare, Rio Algom, International Uranium Corporation, and Plateau Resources Limited, and as allowed under the provisions of UCA 19-5-104(1)(k). No separate involvement of the Division of Water Quality staff is required although they are available to consult with the DRC Director regarding interpretation of rules and other technical or procedural matters relating to groundwater protection. Appeals of enforcement proceedings and permit issues relating to groundwater would be through the Utah Water Quality Board. The Division has substituted the Administrative Rules for Ground Water Quality Protection, R317-6 for groundwater standards provided in Appendix A, 10 CFR Part 40 (EPA Rules 40 CFR Part 192). Enclosed in Appendix G is a packet of information previously submitted including:

(1) A cover letter of October 23, 2002 requesting review of information to justify an "alternate standard" under the Uranium Mill Tailings Radiation Control Act (UMTRCA);

(2) Summary of the process used to determine how to best regulate groundwater at Utah uranium mill facilities;

(3) Executive Summary - Comparison of NRC Groundwater Protection Criteria in 10 CFR Part 40, Appendix A with Utah Ground Water Quality Protection Rules (UAC R313-6)

(4) Detailed Comparison of NRC Groundwater Protection Criteria in 10 CFR Part 40, Appendix A with Utah Ground Water Quality Protection Rules (UAC R313-6)

Staffing (Criteria 29, 34, and 35)

(See also Appendix B)

Up to three new positions will be created within the Division for the Uranium Mill Program that will be combined with an existing groundwater hydrologist position within the Division that already coordinates the uranium mill issues. Eventually, this groundwater hydrogeologist will be responsible for the inspection and licensing of groundwater monitoring for the Uranium Mill Program. A health physicist will be responsible for radiation safety license reviews and inspections of mills as well as inspection of all radioactive material licensees in southern Utah (some 28 licensees). An engineer will be responsible for the inspection and licensing of new facilities, upgrading existing facilities, and closing facilities. An Office Technician II will be responsible for administrative support for the program. Staff currently utilized for licensing and oversight of Envirocare will also assist with the regulation of the Uranium Mill Program.

Management of the Uranium Mill Program will be under the direction of the Low-Level Waste and Environmental Monitoring Section Manager. The 28 radioactive material licensees that the health physicist inspects will be under the direction of the Radioactive Material and X-ray Section Manager.

The Division will staff the program by submitting a request, once it is known when the amended Agreement is to be signed, to the Department of Environmental Quality Human Resource

Management Office to recruit the three positions. The positions have already been authorized and established in the Department FY 2003/2004 budgets. It is anticipated that recruitment may commence as early as July 1, 2003 depending on the status of the amended Agreement. This would be in anticipation of an amended Agreement being signed on or before October 1, 2003. Three months of fees collected during January - March 2002 will fund new staff and have them in place prior to signing of the amended Agreement. The new staff will be mentored by existing staff that have been qualified in key areas prior to the new staff being hired. By July 1, 2003, the following existing Division of Radiation Control staff will be qualified in the uranium mill program area:

Speciality Area	Staff Members to be Qualified
Health physics	Gwyn Galloway, John Hultquist, Boyd Imai
Engineering	Steve Palmer, Woody Campbell
Groundwater	Loren Morton, Rob Herbert, Brian Hamos

The qualification process will consist of completion of NRC "core" courses (many of the above staff have accomplished this) in each specialty areas. Training will also be provided through accompaniment of NRC inspectors from NRC Region IV during routine mill inspections of the International Uranium White Mesa Mill, the Rio Algom facility, and the Plateau Resources Shootaring Canyon Mill. Opportunity will also be taken for inspection training during Region IV inspection of the Envirocare facility 11e.(2) operations. In addition, arrangements have been made with the Colorado Department of Public Health and Environment Radiation Services Division to accompany state of Colorado inspectors on a training/tour/routine inspection of the Cotter Corporation Mill in Canon City, Colorado. As the above staff members are qualified as

mentors, they will be available to work with newly hired staff prior to the signed amended Agreement to the point in which newly hired staff achieve uranium mill competency. Once newly hired staff are competent to work independently, the mentors provide adequate backup in this specialty area as needed.

The new staff will also go through program orientation and receive the opportunity to participate in Nuclear Regulatory Commission or equivalent, State, Federal Emergency Management Agency, Department of Energy, and other job related courses. The engineer, health physicist, and hydrogeologist will have the opportunity to take the following NRC or equivalent courses as needed: Inspection Procedures, Introduction to Licensing Practices and Procedures, Introduction to Health Physics, Nuclear Transportation Course, Radiation Protection Engineering, Radiological Emergency Response Operations Training, and available courses related to uranium mill and mill tailings. They will also review the Radiation Control Rules and become familiar with Regulatory Guides and reference materials. The NRC Training guidance documents (NRC Inspection Manual Reports 1246A-12 and A-13, Section XIII: "Training Requirements for Uranium Recovery Project Manager/ Technical Reviewer" and Section XII "Uranium Recovery Inspector NRC Inspector Qualification Journal") will be utilized by the Division as references for training inspectors and license reviewers for uranium mills. The office technician will be given the opportunity to take State training programs as they become available.

In order to ensure that an adequate number of staff were to be hired to fulfill the requirements of the uranium mill and tailings regulatory program, an evaluation was conducted. As mentioned previously, the staff to be hired are 1 health physicist, 1 engineer, and 1 office technician. The

groundwater hydrologist position that was anticipated will be filled by an existing position who has been coordinating uranium mill issues for the Division. It was determined that the professional staff (engineer, health physicist, groundwater hydrologist) would be available for 260 work days (52 weeks/year X 5 days/week). Factors of vacation (10 days assumed), paid holidays (11 days), and sick leave used (5 days) reduced the availability of 1 staff person to 243 days per year. Professional staff consisting of three persons would provide the Division with the availability of 702 staff days. Office technician administrative functions were not factored into the available staff days. This includes such administrative functions as filing, correspondence, GRAMA (similar to FOIA) requests, equipment and supplies, and travel arrangements.

To evaluate the staff availability, inspection and licensing activities were estimated on a yearly basis.

INSPECTION WORKLOAD/YEAR

Average Inspections per year	# of staff involved	Staff days per inspection	Enforcement factor [1]	Inspection days per year [2]
Envirocare - 2	3	5	10	50
Rio Algom - 2	2	3	0	12
IUC - 2	3	5	5	40
Plateau - 2	2	3	0	12
Totals				114 days

[1] Enforcement factor may include Notice of Violation/Order preparation, evaluation of responses regarding corrective actions, final settlement or administrative hearing.

[2] Does not include travel time to and from Southeastern Utah estimated to be 6 hours/each way. Rio Algom and White Mesa trips to be combined, Plateau trips will be single trip.

LICENSING WORKLOAD/YEAR

Licensee	Significant licensing actions/year	Public participation factor [1]	# of staff involved	Staff days per action	Licensing staff days
Envirocare	4	48	3	10	168
Rio Algom	1	12	2	5	72
IUC	4	48	3	10	168
Plateau	1	12	2	5	72
Totals					480 days

[1] Public participation factor: public hearing (1 day), evaluate comments (5 days), final decision (2 days), administrative hearings (4 days) = 12 days

To determine staff availability for a year, the inspection days workload (114 days) was added to the licensing days workload (480 days) for a total of 594 days. A 15% contingency factor (89 days) was also included which would include training and other non-direct activities.

In conclusion, staffing appears adequate:

> 594 days (inspection/licensing workload) + 89 days (15 % contingency) = 683 days
> 702 staff availability days estimated = + 19 staff availability days (not including the administrative services provided by the office technician)

Funding (Criteria 29 and 35)

The DRC will use a combination of annual operating fees and hourly review fees. The operating fees were initially established in the Radiation Control Act as a result of the passage of 1 substitute SB96 during the 2002 General Session of the Utah Legislature. The fees, beginning in FY2004 will be established and transferred to the DEQ annual fees document. A copy of the FY2004 proposed fee schedule is included in Appendix H. This fee schedule will be offered for approval during the 2003 General Session of the Utah Legislature. An hourly review fee was established in the DEQ annual fees document during the 2002 legislative session that will be effective upon program transfer. Annual operating fees will differentiate between closed,

standby, and operating facilities. Review of NRC generated data regarding review fees and operating fees suggested that there will be sufficient revenue generated to fully fund the state program.

Statutory Changes (Criteria 29 and 35)
(See also Appendix C)

The Radiation Control Act was amended during the 2002 General Session of the Utah Legislature by 1 substitute Senate Bill 96 (enrolled copy provided in Appendix I) to allow the Radiation Control Board to establish rules for licensing, operation, decontamination, decommissioning, including financial assurance, and reclamation of sites, structures, and equipment used in conjunction with possession, use, transfer, or delivery of source and byproduct material and the disposal of byproduct material (uranium or thorium mill tailings and related wastes). The Radiation Control Act was also amended to add a representative of the uranium milling industry and another member of the public to the Radiation Control Board. Governor Leavitt signed the bill on March 26, 2002. On November 22, 2002, following confirmation by the Utah Senate, Royal I. Hansen (general public) and Robert Pattison (uranium milling industry) were appointed by Governor Leavitt to the two new Board positions established by changes to the Act.

The following statutory changes to the Utah Radiation Control Act to implement an amended Agreement for uranium recovery regulation were accomplished during the 2002 General Session of the Utah Legislature:

19-3-103(3)(d) was modified to include three representatives of the regulated industry, at least one representing the radioactive waste management industry and at least one representing the uranium mill industry; and to modify (h) to include three members of the general public, at least one whom represents organized environmental interests. This change will expand the Board to 13 members. This is to ensure that the Board remains an odd-numbered membership as required by state policy.

19-3-104(d)(i) (ii) was added to give the Radiation Control Board the authority to make rules as necessary regarding the possession, use, transfer, or delivery of source and byproduct material and the disposal of byproduct material to establish requirements, for the licensing, operation, decontamination, decommissioning, including financial assurance and the reclamation of sites, structures, and equipment used in conjunction with such activities.

19-3-105(a) was added to establish fees under 19-3-105(b)(i)(ii),(c),(d)(i)(ii),(e),(f), and (6)(a)(b) for the regulation of source and byproduct material at uranium mills or commercial waste facilities. From January 1, 2003 through March 30, 2002, fees for uranium mills or commercial sites disposing of or reprocessing byproduct material were established at $6,667 per month and $4,167 per month for uranium mills determined to be on standby status. On or after March 31, 2003, the same fees apply, but only if the NRC has granted an amended Agreement to Utah on or before March 31, 2003. After March 31, 2003, fees are to be paid (same schedule) either beginning October 1, 2003 (if amended Agreement has been achieved), or the beginning the date in which NRC grants the amended Agreement. For payment periods after July 1, 2003, the fees are established under the authority of the Department of Environmental Quality fee schedule

approved by the Utah Legislature. Annual fees are deposited in the Environmental Quality Restricted Account.

In addition to the changes described above, administrative changes were made to:

19-1-108(2)(a) which adds the fees collected as described above to the Department of Environmental Quality Restricted Account

19-3-104(1)(a)(b) was added to indicate decommissioning includes financial assurance and source and byproduct material have the same definition as described in the Atomic Energy Act. This resulted in renumbering of subsequent paragraphs - (2)(3)(4).

19-3-104(11)(b) was added to clarify that only commercial low-level waste facilities are subject to siting criteria rules (already established under Utah Radiation Control Rules R313-25-3).

There were other administrative changes that resulted in some renumbering of portions of 19-3. These are best detailed in the enrolled copy of 1 substitute SB96 found in Appendix I in which the changes to the Radiation Control Act, 19-3 are underlined and striken as appropriate.

Reservation of Authority to the United States

(Criterion 30)

State rules will be modified to reserve the authority to the United States in UMTRCA as stated in 10 CFR 150.15a as follows: establishment of minimum standards for reclamation, long-term surveillance or maintenance, and ownership of byproduct material; prior to license termination, determine that licensee has complied with decontamination, decommissioning, reclamation standards, and ownership standards; prior to license termination, the take title provision will be invoked at option of the State; authority to require monitoring, maintenance and emergency measures after license termination; authority to permit use of surface or subsurface estate, or both of the land transferred per UMTRCA; and authority to exempt land ownership transfer requirement of Section 83(b)(1)(A).

Rulemaking (Criteria 29 and 35)

(See also Appendix J)

The Division of Radiation Control has adopted applicable parts of 10 CFR 40 by reference (disclaiming any intent to regulate materials or activities over which the NRC retains jurisdiction) with necessary changes to reflect primacy of the Utah program (e.g., recognition of the Executive Secretary, etc.). With the adoption by reference of the NRC regulatory program, it is recognized that guidance has been published that is intended to provide clarification to the various regulatory elements. The Division will follow the published NRC guidance documents unless doing so will compromise protection of human health and the environment.

The DRC recognizes that it cannot make a fundamental change to an Atomic Energy Act provision (e.g., the definition of byproduct material). The DRC further recognizes that pursuant to provisions of the Radiation Control Act [19-3-104 (6) and (7)], it can adopt rules more stringent than federal law only after a public hearing and a written finding based on evidence in the record that the federal regulations are not adequate to protect public health and the environment.

Statutory authority to make rules was granted to the Board during the 2002 Utah legislative session per 19-3-104(4)(d) of the Radiation Control Act. A determination was made that the following rules would need to be modified or proposed to ensure compatibility with the requirements of 10 CFR Part 40:

R313-22-33(1)(e), "General Requirements for the Issuance of Specific Licenses" [modified]

R313-70-7(2)(b)(c)(d), "License Categories and Types of Fees for Radioactive Material Licensees" [modified]

R313-17-2(1)(a), "Administrative Procedures" [modified]

R313-15-1001, "Waste Disposal - General Requirements"

R313-19-2, "Requirements of General Applicability to Licensing of Radioactive Material" [modified]

R313-22-39, "Executive Secretary Action on Applications to Renew or Amend" [modified]

R313-24, "Uranium Mills and Source Material Mill Tailings Disposal Facility Requirements" [new section incorporating 10 CFR Part 40 by reference with exception of groundwater requirements]

The rulemaking process involves approval by the Radiation Control Board of each proposed rule for filing with the State Division of Administrative Rules. All State Agencies use the rulemaking procedures of the State Division of Administrative Rules and are bound by such procedures. Proposed rules or changes to proposed rules are published in the Utah Bulletin for public comment on the first or fifteenth of each month. The rulemaking process requires a 30-day public comment period. Announcement of the public comment period is made in the two major daily Salt Lake newspapers as well as newspapers in the impacted communities such as Moab and Blanding. Following the comment period, an assessment of needed changes is made. If no comments are received or the changes are non-substantive, the rules are submitted to the Radiation Control Board for final approval at the next Board meeting, and an effective date is established. The effective date is usually set for one week after the approval date to allow for the filing of the paperwork with the Division of Administrative Rules. Rulemaking has to be completed within 120 days of the initial filing date or the process must commence again. During this rulemaking process, comments were received from stakeholders regarding several of the rules (see Table A). As a result, it was determined that the comments required substantive changes to the initial proposed rule. For those rules, the comments were evaluated and a determination made if changes were needed (summarized in a response document). The rules requiring substantive changes then were re-drafted with the needed changes as a "change to a proposed rule". These modified rules were approved for filing by the Radiation Control Board

and submitted to the Division of Administration Rules. The rules were subject to another 30-day public comment period. Table A provides a summary of the rulemaking steps followed for each of the seven rules including when the rules were made effective.

Table A
Summary of Uranium Mills/Tailings Rulemakings
Division of Radiation Control - 2002

Rule	Approved by RCB for pc Published in State Bulletin	Commence Public Comment Period	Public comment period extension	Written comments/ Response to comments	Final approval by RCB Effective Date
R313-22-33(1)(e)	4/5/2002 5/1/2002	5/1/2002	6/5/2002	No	6/7/2002 6/14/2002
R313-70-7(2)(b)(c)(d)	4/5/2002 5/1/2002	5/1/2002	6/5/2002	Yes 6/4/2002	
R313-17-2(1)(a)	4/5/2002 5/1/2002	5/1/2002	6/5/2002	Yes 6/4/2002	
R313-15-1001	4/23/2002 5/15/2002	5/15/2002	6/28/2002	No	7/22/2002 7/22/2002
R313-19-2	4/23/2002 5/15/2002	5/15/2002	6/28/2002	Yes 7/12/2002	
R313-22-39	4/5/2002 5/15/2002	5/15/2002	6/28/2002	No	7/22/2002 7/22/2002
R313-24	4/5/2002 5/1/2002	5/1/2002	6/28/2002	Yes 7/12/2002	

Table A
Summary of Uranium Mills/Tailings Rulemakings
Division of Radiation Control - 2002

Rule	Approval by RCB Re-published in State Bulletin	Commence Public Comment Period	Public comment period ends	Written comments/ Response to comments	Final approval by RCB Effective Date
R313-22-33(1)(e)	N/A	N/A	N/A	N/A	N/A
R313-70-7(2)(b)(c)(d)	6/7/2002 7/1/2002	7/1/2002	7/31/2002	No	9/6/2002 9/10/2002
R313-17-2(1)(a)	6/7/2002 7/1/2002	7/1/2002	7/31/2002	No	9/6/2002 9/10/2002
R313-15-1001	N/A	N/A	N/A	N/A	N/A
R313-19-2	7/22/2002 8/15/2002	8/15/2002	9/16/2002	No	10/4/02 10/7/02
R313-22-39	N/A	N/A	N/A	N/A	N/A
R313-24	7/22/2002 8/15/2002	8/15/2002	9/16/2002	Yes 9/20/2002	10/4/02 10/7/02

Appendix J provides a copy of the rulemaking packet submitted to the NRC on October 9, 2002 which included each of the approved rules in "final" form as filed with the Division of Administrative Rules. Administrative rules adjudicative proceedings are found in R15-5, the entire text of Administrative Rules Procedures (R15) is provided in Appendix J as well. Also provided in Appendix J are copies of the Division response documents to stakeholder comments.

In addition, the NRC suggested in the letter confirming compatibility of the Utah rules of November 22, 2002 (see Appendix J) that a change be made to R313-24-1 by inserting "source material in" following the words "possession and use of" in the first line. This change has been accomplished by filing a non-substantive rule change (see Appendix J) with the Division of Administrative Rules on December 19, 2002. If accepted as a non-substantive change, it may be effective as early as January 1, 2003. If Administrative Rules rejects the non-substantive change explanation, the Division will proceed with normal rulemaking at either the January or March 2003 Radiation Control Board meeting.

The Utah Radiation Control rules were modified to include consideration of environmental impacts (see discussion below under **Suggested State Legislation-Model State Act)** (Criterion 31). This was accomplished in R313-24-3.

Suggested State Legislation-Model State Act (Criterion 31)

The Utah Radiation Control Rules will be modified to include consideration of environmental impacts (including radiological or non-radiological impacts, surface and groundwater impacts, consideration of alternatives to the licensed activities, and long-term impacts of licensed activities) for new licenses and major license amendments. The analysis will be included in the safety evaluation report for new licenses and in a statement of basis for major license amendments. New licenses and major license amendments will be available for public comment at least 30 days following the publication of notice. R313-17-2, 3, and 4 of the Utah Radiation Control Rules provides an opportunity for written comment, as well as a public hearing prior to

the issuance, or amendment of a license. Once the Executive Secretary of the Utah Radiation Control Board reaches a final decision on a new license or amendment to a license, parties or individuals may appeal such decisions to the Utah Radiation Control Board. The Board acts as a judge in such matters in accordance with Utah administrative procedures such as determining standing, taking testimony, and rendering a decision to either modify, set aside, or support the final decision of the Executive Secretary.

Licensing Program (Criteria 29 and 35)

The licensing process will follow the elements of the current radioactive materials program which is subject to periodic program review by the NRC. License renewal, amendments, reclamation plans or revisions to reclamation plans or new licenses may be subject to public comment and/or public hearing. Criteria of R313-17-1 through 4 of the Utah Radiation Control Rules would apply. Rule R313-17 will be modified to add the uranium recovery facility category designation as a category that public comment is applicable. The Division would follow current policy as to the differentiation between minor and major amendments and the need for public comment. This policy established in 1993 applies the following criteria:

> Minor amendments to a license do not require public comment. These amendments do not substantially alter the license conditions or reduce the capability of the licensee to protect human health and the environment.
>
> Major amendments to a license require public notice. These amendments are necessary to enable the licensee to respond in a timely manner to common variations in the types

and quantities of the materials, technological advancements, changes necessary to comply with new rules, and changes that substantially alter the facility or its operations.

Upon application for a license amendment, a determination of major or minor amendments will need to be made.

Existing NRC licenses will be transferred to the State upon program relinquishment by the NRC and will be converted into a "state license" which will include appropriate Utah regulatory citations in lieu of "Part 40" language and will incorporate the Utah administrative process (e.g., Executive Secretary) where necessary. The license conditions will remain unchanged except for the above until a license amendment request or license renewal. The current expiration date of the license will remain the same.

The Division of Radiation Control Technical Procedures for License Review will be followed during the review process (see Appendix E). The NRC Standard Review Plan for Uranium Mills and Mill Tailings as well as the checksheet will be used as guidance documents during the license review process. Licensing evaluations or analyses will include radiological safety aspects in occupational or restricted areas and environmental impacts to population or restricted areas surrounding facilities. As necessary, evaluations will include pre-licensing visits to obtain relevant information. Items which will be evaluated include, but are not limited to, the following: general statement of proposed activities; scope of proposed action; specific activities to be conducted; administrative procedures; facility organization and radiological safety responsibilities, authorities, and personnel qualifications; licensee audits and inspections;

radiation safety program, control and monitoring; radiation safety training programs for workers; restricted area markings and access controls; review of monitoring data, exposure records, license audit and inspection records as well as other records for existing mills; environmental monitoring; radiological emergency procedures; product transportation; tailing management facilities and procedures; site and physical plant decommissioning procedures, other than tailings; and employee exposure data and bioassay programs.

The environmental analysis will be part of the license review process and will consist of a detailed and documented evaluation of the following items: topography; geology and seismology; hydrology and water quality; meteorology; background radiation, tailings retention systems; interim stabilization, reclamation, and site decommissioning programs; radiological dose assessments (source terms; exposures pathways; dose commitment to individuals; dose commitment to populations; evaluation of radiological impacts to the public to include determination of compliance with State rules and Federal regulations and comparison with background values; occupational dose; radiological impact to biota other than man; and radiological monitoring programs, pre-operational and operational); impacts to quality and quantity of surface and groundwater; environmental effects of accidents; and evaluation of tailings management alternatives in terms of regulations. The staff will also review the following during preparation of the environmental analyses for a new uranium recovery facility: ecology; environmental effects of site preparation and facility construction on environment and biota; environmental effects of use and discharge of chemicals and fuels; and economic and social effects.

The Division will use the following NRC publications as guidance documents (when applicable) during the license review process: Regulatory Guide 3.11, "Design, Construction, and Inspection of Embankment Retention Systems for Uranium Mills"; 3.111, "Operational Inspection and Surveillance of Embankment Retention Systems for Uranium Mill Tailings"; 3.51, "Calculational Models for Estimating Radiation Doses to Man from Airborne Radioactive Materials Resulting from Uranium Milling Operations"; 3.56, "General Guidance for Designing, Testing, Operating, and Maintaining, Emission Control Devices at Uranium Mills"; 4.14, Radiological Effluent and Environmental Monitoring at Uranium Mills"; 8.22, "Bioassays at Uranium Mills"; 8.25 "Air Sampling in the Workplace"; 8.30, "Health Physics Surveys in Uranium Mills"; 8.31, "Information Relevant to Ensuring that Occupational Radiation Exposures at Uranium Mills will be As Low As is Reasonably Achievable". Other guidance documents that may also be use as resources are I.C.R.P. Report 29: "Radionuclide Release into the Environment: Assessment of Doses to Man" as well as N.C.R.P. Report 76, "Radiological Assessment: Predicting the Transport, Bioaccumulation and Utake by Man of Radionuclides Released to the Environment".

The Division's health physicist and hydrogeologist will perform operation data reviews and required the licensee to submit semi-annual radioactive material effluent release reports as well as semi-annual environmental monitoring reports. The written reports will be required to be submitted within 60 days after January and July 1 of each year. The licensee will be required to specify the quantity of each of the principle radionuclides released to unrestricted areas in liquid and gaseous effluents during the pervious six

months of operation. The data for the effluent release will be required in a manner that will permit the physicist and hydrogeologist to confirm the potential annual radiation doses to the public and confirm the dose to receptors.

The State will recognize already established performance-based license conditions for uranium mills and tailings. The State is willing to consider future performance-based license conditions on a case by case basis with each licensee. An issue that will need to be addressed is the appropriate method for substantive involvement of the public while still achieving the operational objectives of performance based licensing.

Inspection Program (Criteria 29 and 35)

There will be at least four facilities that will require inspection: Lisbon (Rio Algom), White Mesa (International Uranium), Shootaring Canyon (Plateau Resources), and Clive (Envirocare of Utah). Currently, Envirocare of Utah in Tooele County is subject to quarterly inspections by the NRC using staff from offices in Arlington, Texas sometimes supplemented by NRC headquarters staff from Rockville, Maryland. Envirocare inspections would be assigned to the "Envirocare team" and incorporated into the overall oversight and inspection schedule now in use for low-level radioactive waste.

A health physicist will be hired to inspect each of the mills at least on a quarterly basis. The mill inspection frequency schedule will be reviewed regularly and adjusted as needed for different circumstances (e.g., good compliance, standby not operating, etc.). The health physicist will be housed in the DRC office in Salt Lake City but will travel to

southern Utah at least one week per month to accomplish both regular (quarterly) and oversight inspections. This health physicist will also be responsible for the inspection of 28 other radioactive material licensees in southeast and southwest Utah. The engineer and groundwater hydrogeologist will provide inspection support as needed to the health physicist in such areas as groundwater sampling evaluations, split groundwater sampling, oversight of new engineering construction or oversight of closing facilities.

he State inspection program will incorporate all the elements of the current radioactive materials inspection program (see Appendix D for Inspection and Enforcement procedures) relevant to Part 40 uranium recovery facilities which is subject to periodic program review by the NRC. Items that will be examined during inspections will be consistent with items evaluated during licensing. The Division inspectors will perform independent surveys and sampling in addition to examining aspects of license performance as follows: administration; milling processes, including any additions, deletions or operational changes; accident and incidents; notices, instructions, and reports to workers in accordance with R313-18 rules; action taken on previous findings; physical plant facilities of the mill tour to determine compliance with regulations and license conditions; tailings waste management to determine compliance with rules and license conditions (NRC Regulatory Guide 3.11.1 see Appendix E); records; respiratory protection and bioassays to determine compliance with license conditions and R313-15 rule; effluent and environmental monitoring; training programs; and transportation and shipping.

A complete inspection will be performed at least annually and will include independent surveys and sampling. The NRC inspection form for Uranium Mills as well as the NRC Inspection Manual, Chapter 2801, "Uranium Mill and 11e.(2) Byproduct Material Disposal Site and Facility Inspection Program" will be utilized as guidance documents by the State inspectors during an inspection. Enforcement actions will be in accordance with the Utah Radiation Control Rules and existing enforcement guidance (used for the radioactive materials and low-level waste program, see Appendix D for Inspection Procedures). All enforcement actions can be appealed through the Utah Radiation Control Board and thereafter, to the appropriate court. The DRC will also conduct periodic split sampling with facilities regarding waste materials or groundwater samples.

Rules Equivalent to NRC Regulations (Criterion 32)

In addition to future adoption of applicable parts of 10 CFR 40 by reference (disclaiming any intent to regulate materials or activities over which NRC retains jurisdiction), pending the legislative process, the DRC has the following Utah Administrative Code (UAC) rules equivalent to NRC Regulations:

R313-15, "Standards for Protection Against Radiation"

R313-18, "Notices, Instructions and Reports to Workers by Licensees or Registrants-- Inspections;

R313-19, "Requirements of General Applicability of Licensing of Radioactive Material

(Packing and Transportation of Radioactive Material is in this section.)

Part of the regulation for certain portions of 10 CFR 150, "Exemptions and Continued Regulatory Authority in Agreement States and in Offshore Waters under 10 CFR 50.31(b)" is met through the Radiation Control Act, Utah Annotated Code 19-3, and will be met through the adoption of applicable parts of 10 CFR 40 by reference (disclaiming any intent to regulate materials or activities over which the NRC retains jurisdiction). The Utah Radiation Control rules will be modified to include a written environmental impact analysis process.

Pending the adoption of 10 CFR 40 and modifications of the rules, the DRC has rules that are up to-date and compatible with the NRC rules (see Appendix C, State Regulation Status form).

Instrumentation (Criterion 36) and **Laboratory Support** (Criterion 34)

The State has sufficient field and laboratory instruments to ensure licensee's control on materials and validate licensee's measurements. Appendix F has a list of the State's instruments and Instrument Calibration Procedures. Instruments are calibrated as necessary but not less than annually except for those used by the Radioactive Material Section which are calibrated semi-annually.

Laboratory instruments are available through the Division of Radiation Control as well as through the State Health Laboratory which have the capabilities for quantitative and qualitative analysis of radionuclides associated with natural uranium and its decay chain, primarily, U-238, Ra-266, Th-320, Pb-210, and Rn-222 in a variety of sample media. If the State Health Laboratory does not have the analytical capabilities needed, the Division may contract with a commercial laboratory to perform quantitative or qualitative analysis.

The State Health Laboratory has established acceptable criteria for quality assurance and participates in the National Environmental Laboratory Accreditation Program. The Environmental Protection Agency's program for laboratory performance is no longer available. The State Health Laboratory can provide the Division staff analytical reports within approximately 30 days. Arrangements can be made for the State Health Laboratory to handle a large number of samples from a major accident in a timely manner. However, the State Laboratory is limited to the number of samples it is capable of running and may have to contract a commercial laboratory for a timely turn around.

The Division has gamma spectroscopy capabilities in-house and a portable spectroscopy unit for field measurements, both qualitative and quantitative. In-house gamma spectroscopy capabilities include the following media: soil, water, and air (filters). The EG&G Ortec gamma spectroscopy unit is a germanium detector connected to a desk top computer with EG&G gamma vision software. The portable unit is a Berkley Nucleonics Corporation Smart Area Monitor. Employees in the environmental section have extensive

experience in dealing with the collection and analysis of naturally occurring radioactive material contaminants in soil, water, and air samples.

Arrangements for Discontinuing NRC Jurisdiction

As stated in the licensing program section of this application, existing NRC licenses will be transferred to the State upon program relinquishment by the NRC and will be converted into a "state license" which will include appropriate Utah regulatory citations in lieu of "Part 40" language and will incorporate the Utah administrative process where necessary. The license conditions will remain unchanged except for the above until a license amendment request or license renewal. The current expiration date of the license will remain the same. The license transfer will not give rise to a requirement to make any changes to existing facilities.

There will be a transition phase for staffing as described in the “staffing” section. Three months prior to signature of the Governor and Chairman of the amendment to the Agreement, recruitment will begin for staff as previously discussed in the staffing section. While staff are being recruited and hired, existing staff as described in the “staffing section” will conduct necessary activities relating to the uranium mill program. Existing Envirocare staff will assume the duties relating to the licensing and inspection of the Envirocare 11e.(2) facility immediately

It is anticipated that the majority of the workload will involve Envirocare and International Uranium White Mesa Mill of which existing staff have good familiarity. On the job training (mentoring) will be provided by existing staff to new staff and it is

anticipated that the new staff will be fully functional and independent within the shortest time possible. Core training will be provided as previously discussed to the new staff.

The NRC will transfer the inspection and licensing files of the four facilities to the DRC during the transition period. Any licensing or inspection actions underway or in transition at the time of program transfer will be provided to the DRC. The DRC recommends that the NRC Headquarters and Region IV representatives schedule (as an amendment Agreement appears imminent) a meeting to discuss the transition tasks that will be needed. The NRC is encouraged to complete Utah work prior to the transfer. Discussion of tasks to be deferred to the DRC should be discussed as part of the transition meeting and scheduling process. The DRC recommends that the NRC archive the license and inspection documents in accordance with federal record management prior to the transfer of site files.

DRC has provided in Appendix K copies of the original Agreement of 1984, the amended Agreement for low-level waste authority in 1990, and a draft amended Agreement for uranium mills and tailings authority for 2003.

Summary

The State of Utah is committed to administering a high quality Agreement State Program that will protect public health, public safety, and the environment. The Division has been granted statutory authority and has undertaken activities in preparation for regulating uranium mills and mill tailings. The Division has trained professional staff and will be

hiring new personnel in areas of administration, technology, and operational support. It is obtaining necessary statutory authority to assume Agreement State responsibilities regarding the regulation of uranium mills and mill tailings and has proposed adoption of regulation compatible, pending the State legislative process, with those developed and adopted by the NRC. Sufficient instrumentation to detect and measure radiation is available within the Division as well as other State agencies. Emergency response capabilities have been demonstrated and exercised. The Division has obtained necessary fiscal support to fund the Agreement State Program, including the regulation of uranium mills and mill tailings. The State is committed to full administrative support to the Agreement State program and has demonstrated its competency in control of radiation as evidenced by the adequate and compatible rating achieved during the last Integrated Material Performance Evaluation Program review.

The Department of Environmental Quality remains committed to its mission of safeguarding human health and quality of life through the protection and enhancement of the environment. The Utah Division of Radiation Control will continue to protect Utah citizens and the environment from sources of radiation that constitute a significant health hazard through its radiation control programs. The State of Utah is prepared and qualifies to assume the responsibilities that would be transferred to the State upon amendment of Section 274 Agreement to include regulation of byproduct material as defined in Section 11e(2) of the Atomic Act.